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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,344	06/20/2003	Steven J. Miller	20882.NP	8456

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EXAMINER
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NGUYEN, SON T

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/601,344

Applicant(s)

MILLER, STEVEN J.

Examiner

Son T. Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

*Antony*  
Prim. Exm. 3643

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8/25/03. 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 8/25/03 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because document numbers 9199/15 and 15184/33. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 105. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "164" has been used to designate both outer surface and blocking edge. Reference character "112" has been used to designate both walls and inflation portion. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology

often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because of undue length (more than 150 words). Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 3,4,12,18-20** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 3, line 2, "the curved portions" lacks prior antecedent basis. Regarding claim 12, line 6, the phrase "slid over" is not true because the receiving cup only abuts, touch or attach to the inverted end and not slid over it. Also, in lines 5 & 8, is the inflation liner the same as the liner member or are they separate elements? It is believed that they are the same, just reworded differently. Regarding claim 18, line 7, "the tubular elongate inflation portion" lacks prior antecedent basis.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 1,7,9-13** are rejected under 35 U.S.C. 102(b) as being anticipated by US 4651676 (herein US676).

For claim 1, US676 discloses a teat cup assembly, comprising: a tubular sleeve 12,14 having an inner surface and an outer surface defining a sleeve bore between first and second open sleeve ends, the outer surface of the tubular sleeve defining an upper end portion and a lower end portion thereof; a milk receiving cup 20,21 having a portion configured to be operatively coupled to the lower end portion of the tubular sleeve; and a liner member 30,32,34,36,40,38,42 including: a head portion 34,36,40,38,42 including an upper teat chamber defined with a cylindrical wall (near where ref. 47 is pointing at) having an outer exposed surface, an intermediate wall (wall portion right before, ref. 38) extending substantially orthogonally inward from the cylindrical wall and an upper seal wall 40 laterally extending inward from the cylindrical wall having a central opening defined by the upper seal wall, the cylindrical wall of the head portion including a cylindrical retaining extension 36,42 configured to cooperate with and be coupled to the upper end portion of the tubular sleeve; and a tubular elongate inflation portion 30,32 including side walls 32 with opposite first and second ends defining a liner bore longitudinally along a length of the tubular elongate inflation portion with opposite first and second open ends, the first end integrally interconnected and extending from the intermediate wall of the head portion with the first open end opening into the upper teat chamber, the second end of the tubular elongate inflation portion being a free end 18; wherein the tubular elongate inflation portion is configured to be inserted through the sleeve bore so that the cylindrical retaining extension is disposed around the upper end portion of the tubular sleeve with the inflation portion configured to be placed in tension with the free end of the tubular elongate inflation portion invertedly drawn around the lower end portion of the tubular sleeve (at ref. 18) with the portion of the milk receiving cup capturing the inverted free end between the lower end portion with an interference fit (at refs. 18 & 20).

For claim 7, US676 teaches the head portion and the tubular elongate inflation portion each comprise an elastomeric material (col. 2, lines 31-32 and cross section of fig. 1).

For claim 9, US676 further discloses wherein the outer surface of the tubular sleeve 12,14 between the upper and lower end portions is configured to be a substantially exposed surface of the tubular sleeve.

For claim 10, US676 further discloses wherein the tubular sleeve includes a vacuum port 22 defining a porthole therein extending through the inner surface of the tubular sleeve.

For claim 11, US676 further discloses wherein the interference fit (at refs. 18,20) of the tubular elongate inflation portion is configured to maintain the head portion to the tubular sleeve with the tension placed on the tubular elongate portion.

For claim 12, US676 discloses an improved teat cup assembly of the type including a tubular sleeve 12,14 having an inner surface and an outer surface defining a sleeve bore between first and second open sleeve ends; the outer surface of the tubular sleeve defining an upper end portion and a lower end portion thereof, a milk receiving cup 20,21 having a portion configured to be operatively coupled to the lower end portion of the tubular sleeve, and an inflation liner 30,32,34,36,40,38,42 with an end 18 inverted around the lower end portion and retained there around with the portion of the milk receiving cup slid over the inverted end for retaining with an interference type fit, the improvement comprising: a liner member including: a head portion 34,36,40,38,42 including an upper teat chamber defined with a cylindrical wall (near where ref. 47 is pointing at) having an outer exposed surface, an intermediate wall (wall portion right before, ref. 38) extending substantially orthogonally inward from the cylindrical wall and an upper seal wall 40 laterally extending inward from the cylindrical wall having a central opening defined by the upper seal wall, the cylindrical wall of the head portion including a cylindrical retaining extension 36,42 configured to cooperate with and be coupled to the upper end portion of the tubular sleeve; and a tubular elongate inflation portion 30,32 including side walls 32 with opposite first and second ends defining a liner bore longitudinally along a length of the tubular elongate inflation portion with opposite first and second open ends, the first end integrally interconnected and extending from the intermediate wall of the head portion with the first open end opening into the upper teat chamber, the second end of the tubular elongate inflation portion being a free end 18;

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wherein the tubular elongate inflation portion is configured to be inserted through the sleeve bore so that the cylindrical retaining extension is disposed around the upper end portion of the tubular sleeve (at ref. 18) with the inflation portion configured to be placed in tension with the free end of the tubular elongate portion invertedly drawn around the lower end portion of the tubular sleeve with the portion of the milk receiving cup capturing the inverted free end between the lower end portion with an interference fit (at refs. 18 & 20). Note, although included in the above, the limitation of "slid over" is moot and is considered that the receiving cup is adjacent to the inverted end for retaining the latter.

For claim 13, US676 discloses a liner member 30,32,34,36,40,38,42 configured to be used in a teat cup assembly including a tubular sleeve 12,14 and a milk receiving cup 20,21, the liner member comprising: a head portion 34,36,40,38,42 including an upper teat chamber defined with a cylindrical wall (near where ref. 47 is pointing at) having an outer exposed surface, an intermediate wall (wall portion right before, ref. 38) extending substantially orthogonally inward from the cylindrical wall and an upper seal wall 40 laterally extending inward from the cylindrical wall having a central opening defined by the upper seal wall, the cylindrical wall of the head portion including a cylindrical retaining extension 36,42 configured to cooperate with and be coupled to an upper end portion of the tubular sleeve; and a tubular elongate inflation portion 30,32 including side walls 32 with opposite first and second ends defining a liner bore longitudinally along a length of the tubular elongate inflation portion with opposite first and second open ends, the first end integrally interconnected and extending from the intermediate wall of the head portion with the first open end opening into the upper teat chamber, the second end of the tubular elongate inflation portion being a free end 18; wherein the tubular elongate inflation portion is configured to be inserted through a sleeve bore defined in the tubular sleeve so that the cylindrical retaining extension is disposed around the upper end portion of the tubular sleeve with the inflation portion configured to be placed in tension with the free end of the tubular elongate portion invertedly drawn around a lower end portion of the tubular sleeve (at ref. 18) with a

portion of the milk receiving cup capturing the inverted free end between the lower end portion of the tubular sleeve with an interference fit (at refs. 18 & 20).

10. **Claims 18-20** are rejected under 35 U.S.C. 102(b) as being anticipated by US 4269143 (herein US143).

For claim 18, US143 discloses a method of making a teat cup configured to draw milk from a teat of a cow in association with a vacuum pump of a milking machine providing cyclic suction thereto, the method comprising: inserting a tubular elongate inflation liner 10, defining a liner bore along a length thereof, into a tubular sleeve 12 so that an upper end portion of the tubular sleeve is disposed within a retaining portion (at ref. 38) of a head member 21, the head member integrally interconnected (as a unit) and extending to one end of the tubular elongate inflation portion so that the liner bore extends into an upper teat chamber (in the area of ref. 22) defined in the head member; pulling a free end 18 of the tubular elongate inflation liner, disposed in the tubular sleeve, to place tension on the inflation liner and invertedly draw the free end around a lower end portion of the tubular sleeve while simultaneously abutting the upper end portion of the tubular sleeve against the retaining portion of the head member with the tension placed on the tubular elongate inflation portion; and longitudinally sliding a milk receiving cup 34 over the inverted free end of the liner to capture the inverted free end against the lower end portion of the tubular sleeve with an interference fit (see fig. 2).

For claim 19, US143 further discloses maintaining the head portion abutted against the upper end portion of the tubular sleeve with the tension placed on the tubular elongate inflation portion and the interference fit of the inverted free end of the inflation portion. As shown in fig. 2.

For claim 20, US143 further discloses forming the head portion and the tubular elongate inflation portion into a one-piece structure made from an elastomeric material (col. 2, lines 38-45).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. **Claims 2-5,14-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over US676 (as above) in view of US 6164243 on form PTO-1449 (herein US243).

For claim 2, US676 does not show a cross section of the inflation portion so it is uncertain if the inflation portion is circular, square, triangular, etc. in shape. US243 teaches a similar inflation portion 14 in which the portion 14 is substantially triangular shaped with at least three walls 40 (see fig. 3). The walls 40 extending along the length of the inflation portion. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a triangular shaped inflation portion with at least three walls as taught by US243 as the preferred shape for the inflation portion of US676 in order to minimize slippage of the assembly on an animal's teat during milking (US243, col. 2, lines 30-33).

For claims 3,14,15, in addition to the above, US243 teaches the triangular shaped walls 40 include radial portions defined along the length of the inflation portion, the curved portions 42 configured to interconnect adjacent side walls of the at least three walls. Therefore, the combination of US676 in view of US243 teaches curved portions connecting side walls.

For claims 4,16, in addition to the above, US243 teaches the side walls 40 and the radial portions 42 define a first thickness and a second thickness, respectively, the second thickness being larger than the first thickness (col. 5, lines 30-40). Therefore, the combination of US676 in view of US243 teaches different thicknesses in the walls in order to encourage inward flexing during closing (col. 5, lines 34-35 of US243).

For claims 5,17, since the shape of the inflation portion of US676 in view of US243 is triangular and constant throughout the inflation portion, a cross section along the length of the inflation portion would be orthogonal to the length of the tubular elongate inflation portion.

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13. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over US676 (as above) in view of US 3696790 on form PTO-1449 (herein US790). US790 discloses a teat cup assembly in which the upper surface of the head portion 66,65 includes spokes 67. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ spokes as taught by US790 on the upper surface of the head portion of US676 for reinforcement.

14. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over US676 (as above) in view of US 6039001 (herein US001).

For claim 8, US001 teaches a teatcup assembly comprising a transparent polymeric milk receiving cup 7 (col. 4, lines 47-50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the milk receiving cup of US676 out of a transparent polymeric material as taught by US001, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (so one can see the milk) as a matter of obvious choice.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is (703) 305-0765. The examiner can normally be reached on Monday - Friday from 9:00 a.m. to 5:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon, can be reached at (703) 308-2574. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Customer Service at (703) 872-9325. The official fax number is 703-872-9306.



Son T. Nguyen  
Primary Examiner, GAU 3643  
January 23, 2004